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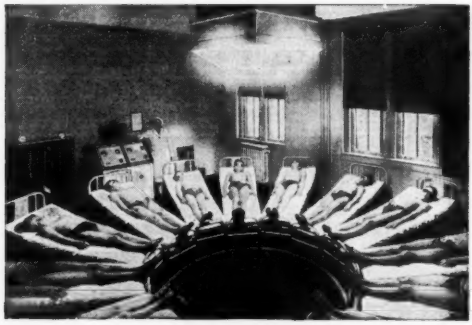

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THE JOURNAL OF SCHOOL HEALTH

Devoted to the interests and advancement of School Physicians and the service rendered by them. Your participation by membership is solicited.

VOL. VII MAY, 1937 No. 5

THE DEPARTMENT OF SPECIAL EDUCATION

MAY E. BRYNE

Director of Special Education, Minneapolis, Minnesota

The Department of Special Education in the Minneapolis Public School system comprises provisions for the blind and sight saving child, the cardiac and crippled, the deaf and hard of hearing, the lowered vitality, the mentally retarded, the child with defective speech, and the child with a disability in reading.

Blind and Sight Saving.—Classes for the blind and sight saving groups are organized at the elementary, junior high, and senior high levels as the need arises. A special teacher is provided for each group of five or more children. All children have daily contacts with children of normal vision. They have the same lesson assignments and make their individual contributions to a group problem as do the other children. The necessary individual assistance to carry on this program is afforded by the special teacher, special materials, and special equipment. At the high school level, readers are supplied in addition to the special teacher and the other special provisions.

Cardiac and Crippled.—The cardiac and crippled at the elementary school level are housed in a separate building of bungalow type. The school is equipped with swimming pool and therapeutic rooms, a rest room, and dining room. An orthopedic surgeon and heart specialist check the children at weekly intervals. Two types of cases are admitted; those who are unable to get to school by themselves and those whose physical condition can be improved by the therapies given at the school. As soon as a child attains the highest possible physical condition for him, and is able to attend the regular school, he is checked out.

For the therapeutic work a full time physiotherapist, nurse, teacher of speech correction, occupational therapist and two teachers of corrective gymnastics, are employed. A dentist makes periodical visits to the school for dental work.

Transportation to and from school by means of buses, is provided by the Board of Education.

The students of high school age are sent to one high school equipped with an elevator. They are likewise transported to and from school by bus.

Special teachers are employed for individual coaching and advising the students. They also make all necessary contacts in the interests of the crippled child.

Deaf and Hard of Hearing.—The deaf and hard of hearing at present are cared for in a separate school because of the cost of special equipment. They are provided with both air and bone duction equipment.

Children are accepted as early as four years of age. When the 8A grade has been completed, they go to the regular junior and senior high schools to complete their public school education. By this time they are sufficiently proficient in reading lips if given assistance in becoming familiar with the different vocabulary.

Lowered Vitality.—The lowered vitality group are cared for in a separate building equipped with open windows, rest rooms, dining rooms, etc. The rooms are kept at a normal temperature even though the windows are open.

Mentally Retarded.—Special classes for mentally retarded children are organized at the elementary and junior high levels. A special course of study has been worked out to meet the needs of these children. Some of the special courses for the older children are training for helpers in lunch rooms, maids, helpers in beauty parlors, child care, cooking and sewing, for girls—and gardening, woodwork, household mechanics, and repair work, for boys. Both boys and girls make a study of the industries of Minneapolis and are made aware of the facilities of their city which resembles a modified Community Life Problems course.

For the first time, a special class for children below 50 I.Q. was organized in September, 1936.

Speech Correction.—Teachers of speech correction are itinerant teachers. Each one has classes in four schools spending one half day in each school twice a week unless there are enough children to occupy an entire day. In that event, the teacher would work in two or three schools as the number demanded. One day each week is reserved for contact with parents to acquaint them with the work and to obtain their co-operation as well as for case history purposes. All difficult cases of stuttering are seen at the speech clinic to determine if possible the relation of handedness and eyedness to speech difficulty. Recommendations for therapy are made and sent to the principal and teachers of the school.

Remedial Reading.—Classes for children with reading difficulties have been a new departure the last two years. We have tried to adapt the individual methods as proposed by Marion Monroe to group procedures. We started at the third grade. These proved to be successful in terms of results. We are experimenting at the fifth grade level. Some experimenta-

tion has already been done at the junior high level. We are still at work and expect to provide ways and means of spreading the techniques in remedial reading to all teachers in the system at these grade levels—viz., third, fifth, and junior high.

The head of the department is known as the Director of Special Education. She is responsible for the administration and general supervision of all work carried on in the department. Assisting in supervision is a full time Supervisor of Braille and Sight Saving Classes, two Supervising Principals, one in the School for the Deaf and one in the School for Crippled and Cardiac Children. The principal of the Lowered Vitality School is a teaching principal who is responsible for the administration of the school only in addition to her duties as a teacher.

The Director of Special Education is also Director of the Speech Clinic aided by two teachers of speech correction.

The work in remedial reading is supervised by an expert trained in that field.

The following table will give the number of people employed to carry on the work of the department at the present time. (Supervision has been cut during the depression).

Type of Work	*Director*	*Supervisor*	*Principal*	*Teachers*	*No. of Pupils*
All	1	.....	.....	.....	.....
Blind and Sight Saving Classes	.....	1	.....	12½	138
Cardiac and Crippled	.....	.....	.....	1 Occupational Therapist	.....
	.....	.....	.....	1 Physiotherapist	.....
	.....	.....	1	10 Elem.	225
	.....	.....	.....	2 H. S.	48
	.....	.....	.....	1 M. T.	.....
	.....	.....	.....	1 H. Ec.	.....
	.....	.....	.....	2 Correc. Gym.	.....
	.....	.....	.....	1 Speech Corr.	.....
Deaf and Hard of Hearing			1 (teaching)	10 Elem.	97
Lowered Vitality	.....	.....	1 (teaching)	3	102
Mentally Retarded	.....	.....	.....	63	945
Speech Correction	.....	.....	.....	12	2000
Remedial Reading	.....	1	.....	2 specialists	.....
				*6 Jr. High	.....
				86 3 & 5 grades	.....

*These Jr. High classes have both mentally retarded pupils and those with reading disabilities, classified separately.

The Department of Special Education has very close relationships with the Department of Hygiene, the Child Study Department and the Visiting Teachers of the Minneapolis Public School system.

Department of Hygiene.—All children are examined by specialists in the different fields at School Clinics and recommended for attendance at

the special schools or classes. Those already enrolled in the public schools are referred to the clinics by the school physicians.

Physical examinations are given annually, or oftener upon request, to children in classes for mentally retarded and speech correction. Speech cases are given preference, being examined early in the school year, that the pupil may have the benefit of early correction of any defect, as the services of the speech teacher are available only on a biennial basis.

The hygiene work in the special schools is also under the Supervisor of the Department of Hygiene.

Child Study Department.—All cardiac, orthopedic and retarded pupils are given an individual mental test by psychologists of the Child Study Department, before admission. Any case of questionable mental development may be referred to the Child Study Department for mental testing and recommendations.

Visiting Teacher Service.—The visiting teacher is available in every school building to aid in making the school adjustments which would be to the greatest advantage of the child.

If a child is found to be a candidate for any of the special schools, or classes as mentioned above, the visiting teacher makes the home contact, explaining the situation and pointing out the advantages to be derived. In this manner the co-operation and approval of the home is secured and the transfer is made. In some instances a child is asked to attend school in another school district than the one in which he lives. In all such cases transportation is provided by the Board of Education. The cardiac and orthopedic cases are transported by bus—all other ride on the street cars. Exceptions are made in individual cases presenting special problems. Providing a plan of transportation by bus can be worked out by the Director of Special Education.

The State of Minnesota provides in the way of State aid to local communities within the State, making provisions for handicapped children as follows:

Braille and Sight Saving	$300 per capita
Cardiac, Crippled and Deaf	$250 per capita
Mantally Retarded	$100 per capita
Speech Correction, Remedial Reading, provided the teacher qualities as a teacher of speech correction	$1500 per teacher

When State aid is granted, the teachers are required to meet the qualifications set up by the State department of education, which amounts to a minimum of twenty additional credits in the selected field, in addition to the requirements of a regular teacher.

The cost of Special Education in Minneapolis includes all possible cost of heating, lighting, janitorial and other services such as transportation, lunches, and salaries. The total runs to about 67 cents per capita of the city population annually, two-thirds of this cost being refunded to the local Board of Education from State aid funds.

Philosophy of Education.—Our philosophy of special education differs from our philosophy of education for children who are not handicapped only to the extent that their needs are different. It is based on the all around development of the personality—physical, emotional, mental, and social.

The goals we hold in mind are the same as for all children, viz:

1. To study life and ways to enrich it.
2. To study our customs and institutions and ways to make them better.
3. To educate the child so that he grows up as socially capable and disposed as it is possible for him to become.

By means of fewer children per teacher and by careful selection of teachers who are especially trained, in addition to the regular requirements of teachers generally, it is possible to give more individual attention and to differentiate the curriculum to meet individual needs. An activity program based upon experiences is universally followed.

* * * * *

Left-Handedness—*To the Editor.*—Please discuss the treatment of an 8 year old boy who is a "true sinister"—left-handed, left-footed, a mirror writer and inclined to stutter and to suffer from persistent enuresis. Please omit name.—M.D., Ontario.

Answer.—Effort should be directed toward established use of the left hand. The tendency to reversal in writing warrants study to determine whether this does not accompany reversal of images that would be confusing in the boy's efforts to learn to read. If this is established, phonetic and kinesthetic methods such as used with children with "word blindness" or reading disabilities should be used in teaching him to read. This will tend to overcome also the mirror writing. Unless the stuttering and enuresis are quite severe, it would probably not be wise to attack these problems directly, since they doubtless are dependent on the muscular inco-ordinations that attend confusions in handedness. Their subsidence is more likely to result from a general stabilization of the boy's activities, the reduction of tension and strain. Such a problem should be referred for study to a psychiatrist or child guidance center, since treatment involves general management of the child's program of activities. See "For Stutterers," by Smiley Blanton and M. G. Blanton, New York, D. Appleton-Century Company, 1936. *The Journal*, A.M.A., March 6, 1937, p. 831.

THE CARE OF THE CRIPPLED CHILD AT THE MICHAEL DOWLING SCHOOL OF MINNEAPOLIS, MINN.

PAUL W. GIESSLER, M. D.
Consultant in Orthopedics
EARL C. HENRIKSON, M. D.
Orthopedist

The crippled child living in Minneapolis up to the year 1919 had very little opportunity for educational advancement. In this year the Board of Education conceived the idea of a school for crippled children and in 1920, after a survey had revealed 40 cripples confined to their homes, the Rotary Club, enlisted by the Board of Education, purchased two buses for the transportation of these children to an old church located on school property. The school was called the Dowling School in honor of a man, who, in spite of physical handicap, had gained success and prominence in Minnesota. In 1921 the Rotarians succeeded in obtaining thru the Legislature State aid to the amount of $250.00 per crippled child.

In 1924 the school moved into a new specially designed one-story brick building situated on a 21 acre wooded lot on the west bank of the Mississippi River at 39th St. This site was given the school by another of Minnesota's cripples, William Henry Eustis. 1936 a new addition was constructed thru a Federal grant of $55,000 plus $30,000 raised by the Board of Estimate and Taxation. This 80 by 100 foot addition contains a 20 by 60 ft. L shaped swimming pool. In this ell will be two submerged tables for underwater exercises. A stretcher on an overhead trolley will be used in transporting in and out of the pool children unable to walk. The water will be kept at 92 degrees. The design of the pool complies with the Department of Health regulations. How much this pool will be appreciated can be understood from the fact that for ten years we have been using a tank measuring only 9 by 6 ft., in which swimming was impossible and which has been far from adequate in giving the needed treatments to an ever increasing number of pupils. Besides the pool, the new addition provides a gymnasium for corrective work, treatment rooms, dressing rooms, showers, a drying room, a spectators room, a doctor's office and an office for the physical instructors.

The Dowling School is part of the public school system of Minneapolis and comes under the direct supervision of Miss May E. Bryne, Director of Special Education for the Board of Education.

The present enrollment at Dowling School is 226 pupils; 50 of these are heart cases and the balance orthopedic cases. These children are transported daily to school in eight Board of Education buses, each bus accommodating about 35 children in charge of a driver and a woman attendant. Dowling School provides eight regular classrooms from Kindergarten to eighth grade and two special rooms, one for spastic cases and one for the

mentally retarded; this last year children of pre-school age, beginning at two years of age, have been made eligible. The same curriculum is followed as in the regular schools. The academic staff consists of one principal, ten classroom teachers, one manual training teacher and one domestic science teacher. There are also a cook and sixteen drivers and attendants. All of these are full-time workers except the manual training teacher, who teaches one day each week.

A High School Center for crippled children has been established at Marshall High School where elevator service is available. At present there are 45 students there.

At noon a warm lunch is served for which each child pays 5c per day, if financially able. During the cold weather a hot drink is served on the arrival of the buses in the morning.

School life is made as normal as possible, and the children respond well to this attitude. Every effort is made to make the children to become independant as soon as possible. Desk-chairs have been made to fit them so they can carry on their school work in comfortable positions. Row-cycles, some with adjustable pedals and some with back supports, are used for transportation about the school until the child is ready to walk alone. Wheelchairs and crutches are furnished when necessary to make this transportation easier.

We encourage and sponsor trips about the city; to museums, art galleries, concerts, etc. The school has a Boy Scout and a Girl Scout Group. Thru the generosity of the Junior League, the children enjoy about 300 volumes of the best in children's literature. The Public Library also loans books to the school.

A Parents' and Teachers' Organization exists here and the parents are a very active factor in the life of the school. They, among other activities, carry on a brace fund from which money may be borrowed by parents for the payment of braces, repayment being made in small monthly installments.

For entrance into Dowling School, a child must first be recommended by the Orthopedic Surgeon or the Cardiac Physician, who are employed by the Board of Education and spend one half a day a week at the school. A child must pass one or both of the following conditions:

1. It must be physicially impossible for him to attend regular school.
2. It must be decided that he can be benefited by treatment at the school. He must also pass a mental test with an intelligence quotient of at least 70.

The Orthopedic conditions consist of such cases as:

Infantile Paralysis, residual
Spastic Paralysis
Tuberculosis of bones and joints, closed cases
Osteomyelitis
Curvature of the Spine

Wry neck
Club feet
Bowlegs
Flat feet
Dislocated hips
Volkmann's paralysis
Obstetrical paralysis
Encephalitis, residual
Spinal meningitis paralysis
Progressive muscular dystrophy

Necessary operative work is done by the child's private physician or, if unable to pay, at the General Hospital, Shriner's Hospital, University Hospital or the State Hospital for Crippled Children. The post-operative care, under the direction of the attending surgeon, may be given at the school. Plaster of Paris casts are changed and braces measured for, applied and adjusted at the school. Each child is examined at least twice each year, and a great many are seen many more times, to make sure no phase of the physical work has been omitted which might benefit him and also to find the cases which have reached the limit of improvement and, if they are deemed fit, to transfer them to regular school. It is one of the aims of the attending orthopedist to return a child to its regular school when he is physically able to attend there, provided he can no more be benefited by treatment at Dowling. We have averaged a transfer of fifteen pupils a year to their regular schools.

Physical treatment is given at the direction of the School Orthopedist unless the child is under the care of another physician, in which case his recommendations are carried out. The personnel of the Physical Training Department consists of one Physiotherapist, two teachers of corrective physical education, one Occupational Therapist and one Speech Teacher. This year we have been fortunate to have a music instructor full time, furnished by W.P.A. Many instruments have been furnished the school, and we feel that remarkable progress has been made along this line. It has helped to teach relaxation, breath control and coordination, and mental hygiene has been improved and social outlook broadened. It now remains for the Board of Education to make permanent this activity.

Physical treatment consists of baking, massage, relaxation, muscle training, instruction in walking, sunlamp treatments, corrective gymnasium, games, and swimming. The spastics are the cases which are most difficult to handle and in which the progress is the slowest. Their work consists in first learning to relax and perform simple exercises in the lying position, then in the sitting position, then standing, and finally, when they seem ready they are taught to walk, first with some support such as a walker, parallel bars, chairs and crutches. It is remarkable how some of these cases

can perform exercises under water which they are entirely unable to do outside.

The Occupational teacher makes use of basketry, typewriting, wood work, weaving, leather work, and sewing to improve the coordination of the hand muscles.

All children have a rest period daily, generally an hour long, in a rest room equipped with sixty beds. On warm days these beds are taken out of doors, when heads and eyes are protected from sun by awnings and dark glasses.

Individual case studies are made, and an annual conference held for the purpose of counseling students as to future courses and types of work to be taken up, compatible with their disabilities. This conference group consists of specialists within and without the school system, whose experience would enable them to make suggestions for the handicapped.

This paper would not be complete if we were to fail to mention the efficient and important work done by our Hygiene nurse. She is a full time worker and directly responsible to Dr. F. E. Harrington, Director of School Hygiene. Some of her duties are to take the daily temperature and pulse on all heart cases and those orthopedic cases where indicated; to check and elimate any cases suggesting colds, infections or contagious diseases; to give sunlamp treatments, and to superintend the children's rest hours.

* * * * *

Health Education.—The Department's first sound motion picture trailer suitable for reproduction in theaters had its initial public showing as a part of the regular program at the Strand Theater, Albany, on April 8. It has since been shown in seven other theaters in Albany and eight in Schenectady.

The new sound short, "The Story of My Life by Tee Bee," was originally a "silent" prepared by the National Tuberculosis Association. With the endorsement of the Association, it was converted into a sound film by Thomas C. Stowell, assistant director of the Division of Public Health Education, with the co-operation of members of the division staff.

The trailer undoubtedly will be used widely in connection with future Early Diagnosis Campaigns against tuberculosis, such as that being conducted this month throughout the State and Nation. The successful experiment was tried both in Albany and Schenectady of adding a short informative campaign message from the local health departments, definitely tieing in the general film with the local plans. It is expected that this idea will be followed in future anti-tuberculosis campaigns. The trailer copies are available for use in any city or community in the State. Prints will be made in 16mm. size for use where the larger 35mm. projection facilities are not available. Health News, New York State Department of Health, April 26, 1937, p. 67.

DIPHTHERIA CONTROL BY IMMUNIZATION*

CHARLES V. CRASTER, M. D., D.P.H.

Health Officer, Newark, New Jersey

That diphtheria need no longer be a problem in any community, has been clearly proven in the City of Newark. Diphtheria antitoxin, years ago, provided a means of reducing mortality. The City of Newark took full advantage of it, giving all possible publicity and, ever since its introduction, has provided it free for all, regardless of ability to pay. When the Schick Test and immunization were perfected, the same attitude was adopted.

Although toxin antitoxin was supplied free as early as 1922, progress in immunizing children was very slow, due to the need of education; also to the fact that five visits were necessary, three for injections, one for the Schick test, and one to read the same. By 1926, only a small percentage of school children, possibly 10% to 20%, and an even smaller proportion of pre-school children, were protected. In 1927, a State Committee was formed and a proclamation issued by Governor Moore calling on the people to protect their children. Special articles were prepared for use on the radio or in lectures to various audiences, such as parent-teachers, professional groups, children, and the like. An appealing pamphlet, entitled "Little Boy Blue," was prepared and many thousands were distributed in Newark and throughout the state.

Both morbidity and mortality had shown a tendency to decrease in the City of Newark during this preliminary campaign, until a record low was reached in 1926 with 409 cases and 21 deaths, the normal for the previous eleven years having been 1,000 cases and 50 deaths per year. The proportion of protected children, however, was far below the safety point, which has been estimated variously at 60% to 65% of school children and 35% to 40% of pre-school children. With a still big and fertile field of 70,000 or 80,000 unprotected school and pre-school children, the disease swung suddenly upward to 696 cases and 62 deaths in 1927; 1,364 cases, 95 deaths in 1928; and 1,717 cases and 96 deaths in 1929.

Investigation proved that some immunized children with positive cultures were carriers of virulent diphtheria organisms. In view of these conditions, an intensive campaign for immunization was instituted in Newark. Free clinics were opened not only in City Dispensary, but in all of the 21 Child Hygiene stations, with the nurses of that division stressing immunization as soon after nine months as possible. (The minimum is now six months.) The Board of Education gave free immunization in the schools for all children whose parents could not afford to pay. In our Parochial

*Reprinted from *Health Progress,* New Jersey Health and Sanitary Assaciation September, 1936.

Schools with 14,000 pupils, the Department of Health immunized regardless of ability to pay. Consent slips and pamphlets were sent to every parent of young children in the City of Newark.

At this stage of the campaign, our greatest success was among Parochial School children in which the authorities co-operated to the limit. As a result, a mark of over 80% complete immunizations was reached as early as 1930. (Today it is over 95%.) In these schools, each class reaching 100% was given a banner and an ice cream party. When a school reached 100%, a large school banner was presented and exercises were held. Another aid, in which the Public Schools co-operated, was the exclusion of all unimmunized children for seven days whenever a case of diphtheria occurred in the class. This procedure is still in effect.

Results have been not only encouraging, but actually inspiring. Both cases and deaths dropped 50% in 1930 to 873 and 47 respectively; in 1931 they both dropped 75% more to 223 and 16. That this was not merely a low wave in the prevalence cycle was proven when 1932 followed with 70 cases and only 2 deaths and, in the next three years, one death each year with 21, 10, and 12 cases respectively. There have been but one death and 18 cases in the past two full years.

Early in 1934, a C.W.A. project made a survey of every home in the city, securing facts and leaving literature on immunization. Reports indicated that 50% of our pre-school children were protected against diphtheria. In April, 1934, by agreement with medical societies, all free clinics for pre-school children were discontinued and a number of physicians offered to hold Health Hours each week with a $1.00 per injection charge, or free if unable to pay. The State Department of Health then started free distribution of toxoid for this work.

In December, 1935, a P.W.A. project was undertaken. Not only was a survey made, but every pre-school child was listed and follow-up visits were made to see how the work of diphtheria immunization was being carried out. Slips were given referring the family to a definite Health Hour physician, if they had no family doctor.

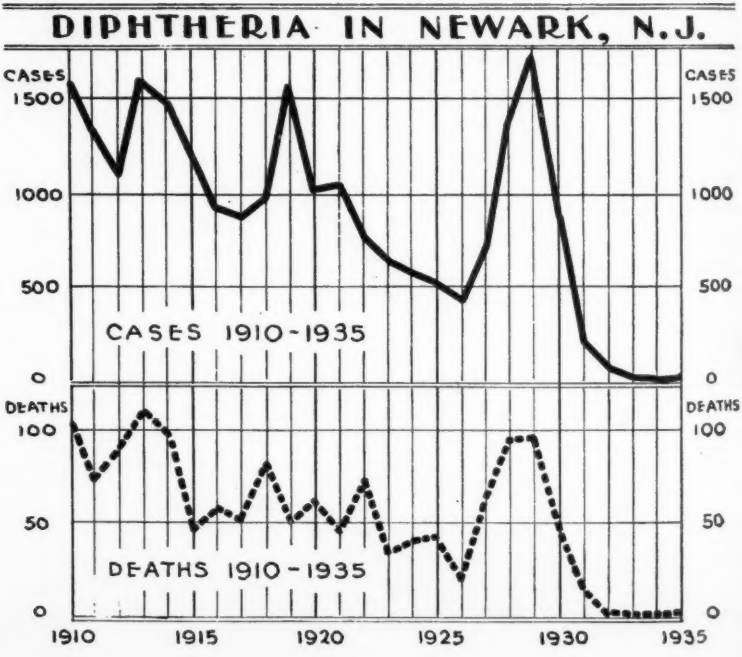
Figures giving results of the first visit, showed that 18,173 families with 25,472 pre-school children from six months to six years had been listed in the City of Newark. Of these, 13,954, or 55%, had been immunized, leaving 11,518 unprotected. Consents were obtained for 10,762 of these children. The first follow-up visit to each family a few weeks later showed 1,690 had kept their promise. Many apparently promised, thinking they would not be bothered again.

Several more follow-up visits indicated that a certain proportion would never be induced to go to psysicians' offices and ask for free treatment, but who might go to clinics. As a result, and with the agreement of the Medical Society, the Health Department opened free clinics in all of the

twenty-one Baby Keep-Well Stations and the City Dispensary about June 1, 1936. During the first five months of 1936, 6,222 immunizations were reported. In June and July with all clinics and physicians' Health Hours working, 3,100 additional immunizations were completed, a total of 9,322 for the seven months. We are now fully justified in estimating that 22,000 of our 26,000 children from six months to six years, or 85% are protected. Not only has our proportion been brought far above the danger point, but the educational value of this frequent follow-up of practically every family with children, has undoubtedly been great.

Although we have avoided legal compulsion, it is interesting to note that under the State Child Welfare Laws of New Jersey, a parent can be compelled to provide immunization. In one instance, a parent caused so much antagonism to our procedure among his neighbors that a test case was made and the father was brought before Judge Siegler of the Essex County Juvenile Court. The father was represented by legal counsel, but was found guilty of neglect to provide proper medical care and sentenced to fine and jail unless he permitted his child to be protected. He was about to be finger-printed and photographed at Police Headquarters when he finally agreed.

Our present routine procedure, most of which has been carried out for the past three or four years, is as follows:



1. Shortly after birth a Child Hygiene nurse calls with birth certificate and mentions immunization.

2. Child Hygiene nurse visits practically all babies once each month for first year of life, and three or four times each year for the next three years. She urges immunization constantly after six months.

3. At one year a birthday congratulation card is sent with reminder of immunization, if not yet done.

4. At two years of age, if not immunized yet, name of baby is referred to Contagious Disease inspectors who make a special issue of it. A postal notice is sent to parents advising that an inspector will call.

5. When child enters school, the school nurse takes up the task. At present at least 85% of public school children and 98% of parochial school children have been immunized. The school nurses and doctors are Schick testing those children who were already immunized to see whether the treatment was successful.

6. Unimmunized children in classes with a case of diphtheria are excluded for one week every time a case occurs.

7. Toxoid is used in pre-school work; toxin-antitoxin for others.

* * * * *

Home Visits—The contagious disease visit should not be an exhibition of police power—a mere routine of enforcement. It should be regarded as an opportunity to explain what the health department is attempting to do, to teach home care of the sick with particular reference to isolation technique, to assist the family physician in securing laboratory examinations, hospitalization, and biologic products where these are needed, to lend a helping hand in time of need. The placarding of houses and the enforcement of regulation is justified insofar as it reduces to some degree the number of secondary cases in the immediate family and among close contacts. Observance of the requirements should be on a basis of voluntary co-operation rather than on a basis of legal compulsion, a decent consideration for the mental attitude if not the safety, of one's neighbors. Voluntary co-operation becomes possible to the extent that the public are informed of the purposes of the health organization and the reasonableness of the restrictions which it imposes. *Illinois Health Messenger,* March 15, 1937, p. 25.

* * * * *

In Southern Illinois Schools—appears a picture of a modern brick building with a tile roof maintained by the state for hogs to use one week during the year at the state fair. Beneath it is a picture of a one-room school in Jackson County, Illinois, which has to be propped up with poles to prevent it from falling down. Children attend this school eight months of the year. The Illinois Education Association is conducting a campaign for an increase in state aid. *The Education Digest,* April 1937, p. 11.

EDITORIALS

"Cogito Ergo Sum."

"After more than fifty years of modern scientific study of child hygiene, it is now possible to state a few fundamental general truths in regard to the relation of the school to the child's health." BURNHAM, *The Normal Mind.*

* * * * *

The scope of child care and education broadens with the speed of a prairie fire. The two are inextricably interwoven. What seems adequate today is outmoded tomorrow.

Advances in civilization rarely take place evenly all along the line. A gain is made here, another there. As research, information, and practice prove a procedure to be worthwhile and possible, the gaps are filled by other communities adopting successful programs, and, step by step, the whole line of modernization moves forward and upward.

One of the greatest gains has been in the field of more adequate care and training for the handicapped child. With rare exceptions these gains have been made wholly in the last thirty years. Advances have been made possible by the earnest work of pioneers with vision, by the better education of health workers and educators, and by a better informed and a forceful public opinion which has obliged legislators to rally to the support of these projects with state funds. These funds have made possible special classes for the handicapped in many communities which would have been unable to finance them from local funds alone.

Certain communities form the salients of the advancing line. It is our purpose to publish, from time to time, definite information regarding successful school health procedures. We must be aware of the expanding horizon of our special field in education, and should be eager to profit by the experience of others. Thus is progress made.

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The modern school has travelled a long way from the one of our ancestors, concerning which the poet wrote—

"Still stands the schoolhouse on the hill, a ragged beggar sunning."

Schools today are often beggars, but those that most of us see are far from being ragged. An informed public opinion and state supervision and coercion have seen to that.

As great as has been the change in externals, an even greater change has occurred in the program within. In no particular is this more evident than in the provision for the handicapped child. Naturally, because of the expense involved, because of the need of frequent and intimate supervision,

and because it is necessary to gather these children into special classes and groups of classes, this activity centers in the cities.

While many cities other than those mentioned have evolved excellent school programs for the handicapped, this advance seems most conspicuous in the mid-west region, and we find among the leaders such cities as Detroit, Cleveland, Milwaukee, St. Louis, and Minneapolis. Rapidly expanded building programs probably have made these innovations more easy in these communities, but a vision also is needed.

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ABSTRACTS

Educating the Crippled Child.—The crippled child in a modern world has one great advantage over his able-bodied fellows. The physical, psychological, and social health of these unfortunate children is recognized as one integrated whole, in the educational plans for the handicapped in our public schools. Education for crippled children embraces medical care and health supervision, personality and vocational adjustment, occupational guidance and placement. Without the proper integration of these special phases of the work, education of disabled children would produce a group of social, as well as physical, cripples.

Educational plans for cripples who are able to attend school include the development of special aptitudes, and recreational facilities adapted to the child's physical capacity. Elementary education for the disabled should follow the same lines as an educational program for normal children. Procedures differ; equipment must be adjusted to the cripples' needs; transportation must be provided, and sufficient time be allowed for rest periods. Yet, the program as a whole should approach the normal as nearly as it is physically possible.

Shall we segregate crippled school children in separate buildings, or provide them with special classrooms within the walls of schools for able-bodied children? This is one of the questions under discussion among educators today.

At the convention of the International Society for Crippled Children the majority of speakers on this subject declared against segregation. The psychological problems of the crippled child are sufficiently trying without adding any other barrier that sets him apart from his fellows. Segregation of the crippled child would seem to prepare the way for segregation and seclusiveness during adolescence and adult life. If able-bodied school children in a community are not accustomed to accepting the handicapped as a part of the social unity, they will continue to segregate these children as they grow older.

Modern education of the crippled child then has turned away from the old system of putting the unfortunate out of touch with normal human

relationships, and has set its face toward the development of well-rounded, socially efficient personalities. *The Health Officer,* U. S. Public Health Service, September, 1936, p. 142.

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What Massachusetts is Doing for the Crippled Child*—The Social Security Act passed by the 74th Congress in August, 1935, has received a great deal of publicity, particularly in respect to its provisions for old age benefits and unemployment compensation. Most people do not know that in addition to those features the Social Security Act, for the first time in our national history, takes a step in the direction of improving and protecting the public health. Of about $15,000,000 thus appropriated for various purposes, the sum of $2,850,000 was set aside to enable each state to extend and improve its existing services for the medical and surgical care of crippled children.

The Commissioner of Public Health, in whose hands the administration of service for crippled children was placed, at once recognized the fact that the medical and surgical care for crippled children, being a curative and not a preventive problem, is a new program in the public health field, and that it, of necessity, closely concerns the medical profession. Accordingly, the problem was discussed with large and small groups of members of the Massachusetts Medical Society in all the eighteen constituent districts of the State, before any moves were made toward the establishment of clinics.

It was decided to define a crippled child as including those children under 21 years of age who are suffering from poliomyelitis, bone and joint tuberculosis, congenital defects, arthritis, and other similar conditions that may lead to or have produced crippling, and that may be treated advantageously. It is planned to include children who require plastic operations following burns and accidents or with congenital defects, such as harelip, cleft palate, and so forth.

Each of these eleven Clinics for Crippled Children is in charge of an orthopedic surgeon, who was selected for that position because of his professional ability. Massachusetts is very fortunate in having orthopedists of international, as well as national, renown; these men are giving their invaluable services for purely nominal fees.

When a child comes to a clinic, he will be examined by the orthopedic consultant, who is in full professional charge of his clinic. He is assisted by the supervisor of Clinics for Crippled Children (a physician on the staff

*Abstracts from a Health Message Broadcast given by Edward G. Huber, M.D., on Thursday, January 28, 1937, and sponsored by the Public Education Committee of the Massachusetts Medical Society and the Massachusetts Department of Public Health.

of the State Department of Public Health), by an orthopedic nurse or physiotherapist, and by a medical social worker.

Many patients attending the clinics require braces or other apparatus. Ample provision has been made to meet the needs of such children. On the prescription of the surgeon, the brace shop at the Lakeville State Sanatorium will make any sort of apparatus, which is then fitted to the child by the orthopedist at a subsequent clinic. This brace shop is not a new department.

It is estimated that there are about 10,000 crippled children in Massachusetts. As a result of a survey made by the Department of Public Welfare in 1931, and of an annual census of such children between the ages of 6 and 16, conducted by the Department of Public Welfare and the Department of Education there are now on the State Register of Crippled Children over 6,000 names. These children are all being investigated to determine their need of aid. Many of them have been well cared for and need nothing more. There probably are many crippled preschool children whose names are not on the State Register. Efforts are being made by the Department of Public Health to find all such children. *New England Journal of Medicine,* February 11, 1937, pps. 258-260.

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Whooping Cough.*—1. Between June, 1934 and July, 1935, 483 Cleveland children, of between 6 and 15 months of age were given whooping cough vaccine prepared from recently isolated strains of H. pertussis. The dosage used was approximately 80 billions. All save 61 of the children received full treatment. A total of 496 children of comparable ages and living in the same neighborhoods were selected as controls.

2. Children of both groups were kept under observation through the Child Hygiene Stations of the Division of Health to the age of 15 months. Those over this age were, and continue to be, visited in their homes once every four weeks by experienced nurses, employed specifically for this purpose. In addition, whooping cough cases, notified by physicians from the eastern section of the city, are checked each day against name and address files of inoculated and control children. All cases, definite or suspected, are investigated by a medical member of the staff, who calls in a consultant pediatrician when necessary.

3. From June 24, 1934 to September 12, 1936, there have occurred 61 attacks among inoculated and 71 among control children. Tabulations are given showing attack rates for each of 10 successive 12-week periods. In none of these were significant differences observed.

4. Allowing 3 months to elapse between completion of inoculations and enrollment in the inoculated group, and between selection and enrollment in the controls, reduces the incidence in both groups, but shows no advantage to the inoculated.

5. The opinion of physicians who have seen representative attacks in both groups is that those in the inoculated have been milder. This is a difficult question to settle. There has been only 1 death, and that in a control child. The question of relative severity of attack in inoculated and non-inoculated will be discussed fully in the final report. *"Active Immunization Against Whooping Cough", Doull, Shibley, and McClelland. *American Journal of Public Health,* November, 1936, P. 1105 Summary.

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Immunization Against Diphtheria.—Inasmuch as the Department of Public Health does not distribute the alum-precipitated toxoid and has consistently recommended against its use, it seems desirable that the Department should set forth at this time the reasons which underlie its objections to immunization through a single dose of alum-precipitated toxoid.

In August, 1936, the *Bulletin** of the Department contains the following statement: "Evidence is accumulating that immunization of children under nine months of age is less effective and probably less permanent than at nine months; further, that the one injection of alum toxoid does not confer as high a degree of immunity as two injections of plain toxoid. In the immunization made in the various stations of the Department of Health the use of alum toxoid has been discontinued. We now advocate immunization of children at nine months of age and the administration of two doses of plain toxoid". Thus, we find the New York City Health Department, after an experience with alum-precipitated toxoid, has decided to go back to ordinary toxoid. Other health departments have had similar experiences.

In opposing the use of alum-precipitated toxoid, the Department (Massachusetts) has at the same time strongly recommended the use of ordinary toxoid in three injections at three-week intervals. In many parts of the country, attempts have been made to immunize through the use of but two injections at intervals of a month. While unquestionably a very substantial number of children can be so protected, there is still not sufficient evidence to indicate that this type of protection is as satisfactory as that which comes from three injections.

In view of this data and many additional findings too numerous to list in this communication, the Department of Public Health feels justified in continuing to recommend against the use of alum-precipitated toxoid and, furthermore, to continue to recommend that, when immunization work is being done, three injections of toxoid should be given, preferably at three-week intervals. It is the feeling of the Department that if immunization is worth doing at all, it is worth doing well. The burden of proof

**Quarterly Bulletin,* New York City Department of Health, August, 1936.

rests upon those who maintain that the protection from these short cuts is as good or as lasting as from the conservative methods which have yielded such striking results in the reduction of diphtheria in Massachusetts. Extracted from a letter to the Editor, *New England Journal of Medicine,* sent him by Henry D. Chadwick, M. D., Commissioner of Public Health, Massachusetts, *New England Journal of Medicine,* April 22, 1937, p. 713.

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Height and Weight.— Chenoweth* in the summary and conclusions of his article on "Increase in Height and Weight and Decrease in Age of College Freshmen" says:

1. The height, weight and age of 8,964 young men and 4,124 young women entering the University of Cincinnati from 1916 to 1935 were averaged each year.

2. The results showed that freshmen are admitted at a younger age now than they were twenty years ago.

3. Freshmen are taller and heavier today than they were twenty years ago, in spite of their younger age.

4. Judging from evidence from the past, mankind in civilized countries is steadily growing taller.

5. There is no definite answer to the question of what causes this to be true, but the probable causes of the increase in stature and weight of young people are better nutrition in infancy and childhood, less communicable disease, higher standards of living, and a higher degree of health intelligence among people in general. Undoubtedly those who have contributed most to this state of affairs have been physicians (especially pediatricians), nutritionists, public health workers, and educators.

6. Studies in the end product of the public schools (college freshmen) seem to indicate that a definite racial betterment is taking place in the United States,* and that the improvement is only partially influenced by social and economic position.

Studies by Bowles[1] made about eight years ago on families, which, for two and, in some cases, for three generations had attended Harvard, Wellesley, Vassar, Smith, and Mount Holyoke colleges, indicate a steady and long continued increase in stature in this group. The sons in a series of 3,000 cases are 8.15 pounds heavier and 1 and 1/3 inches taller than their fathers, the daughters are 7.25 pounds heavier and 1 and 1/10 inches taller than their mothers.—Ed.

**The Journal,* A.M.A., January 30, 1937, p. 356.

[1]"New Types of Old Americans at Harvard", Gordon T. Bowles, Harvard University Press, 1932.

Improvement in Educational Achievement.*—After two years' participation in a general health education program conducted in Grades I and II, pupils in Grade III (both high and low sections) were selected for an experimental investigation on the measurable effects of health teaching projects. Pupils from twelve schools of the public school system of a small industrial city were included in the experimental study. In eight of these schools an extensive three-year health education program was carried on, which consisted of special classroom instruction on the principles of healthful living, conferences with parents and teachers by a staff of child specialists, individual pupil interviews, periodic physical examinations by a pediatrician in the presence of the parent, and follow-up work by the school nurses. Children in these schools are herein referred to as the health instructed or experimental group. In the remaining four schools the pupils were given yearly physical examinations, but had no special health teaching other than the prescribed course in hygiene. These pupils formed a control group against which the improvement of the experimental group could be compared.

Pupils were selected for the study primarily on the willingness of the parents to co-operate in a long time program. At the conclusion of the investigation the records showed 409 of the 452 originally selected pupils with complete physical, psychological, and educational data. Of these, 268 had remained in the health instructed classes, 104 had continued throughout in the non-instructed classes, and 37 had transferred from one group to the other.

The 409 elementary school pupils included in this investigation were all physically able to be in regular attendance, and could be said to form a representative sample of an average elementary school population. Their rate of educational development should have approximated the reported age and grade norms. On standardized tests participants in the health education projects exceeded the grade standards, and one can be reasonably confident that these pupils were accomplishing more than is commonly expected of the average pupil in his progress through the intermediate grades. The non-participants while up to standard gave no indication of an accelerated rate of achievement.

The consistency of the findings when the groups were alike at the beginning of the study with respect to age, general ability, school achievement, practice in the testing situation, and with respect to many aspects of home background and the general character of their school reactions, would seem to warrant the conclusion that the health education program, on the whole, had a stimulating effect on school achievement. However, there is no evidence that it was the health content of the teaching projects which

*Martha C. Hardy, Improvement in Education Achievement Accompanying a Health Education Program, *Journal of Education Research*, October, 1936.

resulted in the improvement. The entire set-up of the investigation, especially the phases involving conferences with teachers, principals, and parents, very likely served as a general incentive influencing teacher-attitudes, methods of teaching, school atmosphere, and, indirectly, individual accomplishment. It is believed to be a composit of all these extrinsic situations interacting with an improved health regimen and physical conditions—in both of which the instructed pupils showed marked improvement—that was associated with the larger gains in educational achievement of the pupils who received special health instruction.

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Safety Education.—Teachers wishing to study methods in safety education will be afforded the opportunity by a number of colleges and universities this summer.

Pennsylvania State College has announced a course in traffic safety and automobile driving to be conducted by Professor Amos E. Neyhart. With many high schools introducing automobile driving as a part of the regular program, a demand for properly trained teachers has been created. This course is offered to teachers to train them in tested methods of presenting the subject. Miami University at Oxford, Ohio, has also announced a driver training course for the summer session.

At Columbia University a general course in safety education will be conducted by Miss Marian Telford, Director of Field Activities and Consultant on Child Safety, Education Division, National Safety Council. Teaching safety through extra-curricular activities and the working out of safety projects in the elementary and junior high schools will be included.

The University of Delaware Summer School at Newark, Delaware, will offer a six weeks' course in general safety education under the direction of Miss H. Louise Cottrell, vice-principal of Stockton School, East Orange, New Jersey.

Springfield College, Springfield, Massachusetts, has scheduled a seminar in safety education at which Dr. Floyd Eastwood, assistant professor of education, New York University, will conduct a number of lectures.

Thomas F. Power, Assistant Superintendant of Schools at Worcester, Massachusetts, will conduct a course in safety education at Hyannis State Teachers' College, Hyannis, Massachusetts. This will cover work in the elementary schools.

A course will be given by Frank K. Foster, formerly of Teachers College, Columbia University, at the University of California in Los Angeles. The University of Louisiana at Baton Rouge has also announced a summer course in safety which will be conducted by Jess W. Hair, director of health and physical education of the Louisiana State Department of Public Instruction.

Safety Education, May 1937, p. 241.

Dr. Herbert J. Stack, director of the Education Division, National Bureau of Casualty and Surety Underwriters, will make a nine week's trip during the summer, lecturing at thirty-five teacher training institutions and universities in California, Nebraska, Missouri, Kansas, and Michigan.

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Health Education—The department's latest health education project got off to a flying start on February 26 when the first of a series of eleven programs for student-teachers in normal schools and colleges throughout the State was held at New Paltz Normal School.

Conducted with the cooperation of the Health and Physical Education Division of the State Education Department, these programs are intended to give future teachers a through foundation in disease prevention and the rules of healthful living which can be passed on to boys and girls in their future classes, and to make health education basic to all education from the three R's to the advanced subjects taught in colleges and universities.

Demonstration of three motion picture films on tuberculosis and accident prevention and a social hygiene talking slide film, with an explanatory talk by the department's representative, drew enthusiastic comment from many of the 550 members of the student body and faculty, most of whom had not known the extent of the department's facilities for assisting in health instruction. The school authorities have asked that another similar program be arranged for the near future.

A large supply of social hygiene material was requested for use by students as well as samples of other printed material for reference in the school library. The social hygiene literature is to be used in connection with a detailed study of syphilis, its control and prevention.

Equally enthusiastic was the response to the second program in the series which was conducted on March 11 at Potsdam Normal School before 650 students and faculty members. This meeting was followed by a request for a two-day program on social hygiene on a community-wide scale. On the first day, it is planned to show one of the department's social hygiene motion picture films at the school for the general student body and again at a mass meeting that evening for parents and other adults in the village. On the second day, there will be a demonstration for seniors of motion picture films with sound effect and transcriptions of radio health plays on the subject of syphilis. *Health News,* New York State Department of Health, March 22, 1937, p. 47.

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Child Health Education—Child health education is that field where the health educator should regard health behavior as more important than health knowledge. It is necessary to develop health practice on the part of the child before he is old enough to understand the scientific reasons upon

which these practices rest. Practice is needed before knowledge is possible.

That parents must become health educators is obvious from the fact that health education should commence with the newborn child. His habits of sleep, feeding, and play, his attitude towards society as well as his mental happiness take root in the diaper stage. If society feeds him when he cries, he cries when hungry. If tantrums bring him attention, he can be counted upon to produce when desiring attention. If enviroment will adjust itself to his wishes—why shouldn't he take advantage of it ? Good or bad habits take seed in the child, they are cultivated or weeded out by parents and teachers, they grow to huge oaks in adulthood as physical habits, moral habits, social habits, and mental habits.

A few school health programs carried on experimentally apparently prove that it is possible to develop and improve the health habits of children. The Malden, Massachusetts, experiment begun in 1921, the Cattaraugus County (New York) rural school experiment, and a few others have made definite contributions to the literature on this subject.

Here we must give credit to the temperance agencies which initiated the teaching of hygiene and physiology in schools in 1880. They were instrumental in securing legislation in about forty States which made it mendatory that schools teach the harmful effects of alcohol and narcotics through a course in hygiene and physiology. The weakness of this traditional type of instruction was the false, tacit assumption that the mere presentation of facts would lead to sound health behavior. The pity of it is that today, nearly sixty years later, health instruction in schools of the majority of the original forty states embraces no more than it did in 1880. *The Health Officer,* U. S. Public Health Service, March 1937, p. 432.

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NOTES

Members and subscribers are urged to read carefully the advertisements appearing in the Journal. Those of Mead Johnson and Company are particularly interesting.

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In a Press Release of March 15, 1937, the American Society for the control of Cancer states that no experimental data have ever been obtained to justify the acceptance of any theory that there is a postive relationship between diet and cancer.

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That part of the Regents Inquiry Into the Character and Cost of Education in New York State relating to the health services in the schools is being done by Don W. Gudakunst, M.D., Director of School Health Service, Department of Health, Detroit, Michigan. Dr. Gudakunst is a member of the American Association of School Physicians, and Vice-

Chairman, Child Hygiene Section, of the American Public Health Association.

Resolution Adopted by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association

February, 1937

WHEREAS, The eyes and the sight of the school child are of the most vital importance for satisfactory school work, and their preservation for future health and efficiency depends upon their wise conservation during childhood; and

WHEREAS, The school has a grave responsibility for the conservation of eyesight among school children; and

WHEREAS, School administrators in many parts of the United States are frequently besieged with demands for admission into their school systems of eye examinations and eye-glass prescriptions by practitioners other than qualified doctors of medicine; and

WHEREAS, The eye, as an organ of vital necessity, requires careful conservation and deserves treatment only at the hands of trained and competent persons; and

WHEREAS, Teachers and nurses properly may and often do make rough tests of visual acuity in the classroom, but diagnosis of diseases of the eye and of disturbances of vision requires more extensive examination and often involves treatment other than the mere fitting of glasses; and

WHEREAS, Even the fitting of glasses often requires the paralysis of accommodation through the use of drugs popularly known as "drops": now therefore be it

RESOLVED, That it is the sense of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, in meeting assembled at New Orleans, February 23, 1937, that the safety of the eyes of school children, the adequate diagnosis of disease and the correct fitting of glasses require examination of children's eyes (beyond rough visual tests performed by teachers or nurses) by a licensed doctor of medicine and, upon his recommendation, by a medical specialist in disease of the eye, properly known as an oculist or ophthalmologist.

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Physical Therapy Technicians.—At the annual session of the American Medical Association in Kansas City on May 13, 1936 the "Essentials of an Acceptable School for Physical Therapy Technicians" were adopted by the Council on Medical Education and Hospitals and passed by the House

of Delegates. Up to the end of March, 1937 the following fourteen schools had been approved by the Council:

Children's Hospital, Los Angeles.
Stanford University Hospitals, San Francisco.
Walter Reed General Hospital, Washington, D. C.
Northwestern University Medical School, Chicago.
Bouve-Boston School of Physical Education, Boston.
Boston University, Sargent College of Physical Education, Cambridge, Mass.
Battle Creek College, Battle Creek, Mich.
St. Louis University School of Nursing, St. Louis.
University of Buffalo, Buffalo.
Hospital for Ruptured and Crippled, New York City.
D. T. Watson School of Physiotherapy, Leetsdale, Pa. (affiliated with the University of Pittsburgh.)
College of William and Mary, Richmond, Va.
University of Wisconsin, Madison, Wis.
Harvard Medical School, Course 445, Boston.

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Finding Untreated Orthopedic Defects.—Future teachers now in training in normal schools throughout the State of New York are being taught how to recognize orthopedic cases as part of a new plan for "weeding out" youngsters with uncared for orthopedic defects and bringing them under treatment.

The schools have set aside definite hours in their regular health courses for lectures intended to familiarize the student teachers with orthopedic conditions frequently found in the classroom and with the general policies established by the State Department of Health for bringing these conditions to the attention of parents, the family physician and the orthopedist for correction. The lectures are followed by demonstrations of the more common types of orthopedic conditions. In addition, an orthopedic examination and postural analysis will be given each student in these schools in connection with the annual health examinations.

This work has been organized by the superintendents of the schools and the State Education Department in conjunction with the Division of Orthopedics, State Department of Health. By this means it is hoped eventually to eliminate the problem of untreated orthopedic cases. *Health News,* New York State Department of Health, May 10, 1937.

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NCTS Scholarship for Post in Tuberculosis Field.—A full tuition scholarship of $300 for study in the Department of Public Health, Yale University School of Medicine, is offered by the National Conference of

Tuberculosis Secretaries for the academic year September 1937 to June 1938. The scholarship is open to both men and women engaged in tuberculosis work as well as to others, including those who expect to graduate from college in June.

Applicants must have a Bachelor Degree for a four years' undergraduate course in a college, university or technical school of approved standing. Preference will be given to those who have had courses in bacteriology, chemistry, physiology, psychology, economics and sociology and to those who have had practical experience in a tuberculosis organization. The nature and quality of the collegiate work of the applicant and personality qualifications will be considered also.

Application blanks may be secured from Professor Ira V. Hiscock, Department of Public Health, Yale University School of Medicine, 310 Cedar Street, New Haven, Connecticut. The Scholarship will be awarded on or about June 21, 1937 and applications should be made *not later than May 28.*

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Nurses.—We have calls for nurses with clinic experience for college and university health services. Applicants should be adaptable to college and university life.

A. O. DeWeese, M. D.
Placement Service of the American Association of School Physicians

REVIEWS

Open Air Classrooms—Report of the Joint Committee on Health Problems in Education of the Nationl Education Association and the American Medical Association. National Tuberculosis Association, New York, 1937, pp. 13.

This is an excellent monograph on Open Air Classrooms showing the advantages, the program, and routine, and the measures of tuberculosis control and prevention. It is excellently summarized.

C. H. Keene

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Nutritional Work With Children—By Lydia J. Roberts. Revised Edition June 1935. The University of Chicago Press, Chicago, Ill. 640 pages. Price $4.00.

The appearance of the second edition of this book is both timely and appropriate. Since the first edition was prepared nine years ago, many advances have been made in nutrition laboratories of this country. Some of these have radically changed our concept of what should be done in the school's nutrition program. Others have added emphasis to the scientific aspects of growth and development. The situation today would seem to

indicate that nutrition work in schools had reached a stage of permanency, many schools having incorporated this knowledge as a part of their curriculum.

The writer, an authority in her field, has brought together under one cover a wealth of data bearing on nutrition. This new edition brings up to date such subjects as measurement, definition of nutrition and malnutrition, effects of faulty nutrition, mental effects of undernutrition, health education at the high school level, appraisal of results of nutrition work, and agencies which affect the health and nutrition of children. Its general arrangement follows closely that of the first edition. The author has provided classified references at the close of each chapter.

This book is particularly recommended for use by the nutritionist, nurse, or teacher engaged in public school health work. It fulfills a distinct need for concise information in this field not supplied by other available texts. It should be made accessible to everyone interested in the normal growth and development of children.

E. E. KLEINSCHMIDT

Technique of Underwater Gymnastics—By Charles L. Lowman, M. D. American Publications, Inc., Los Angeles, 1937. 276 pages. Price $4.00.

Hyderogymanastics has, within a few years, become one of the major weapons of the orthopedist as a means of overcoming the baleful after-results of poliomyelitis and other injuries to the neuromuscular system. This excellent text discusses the history and general theory of these procedures, the conditions suitable for use of hydrogymnastics, and the field of application for corrective aquatics. The chapter on Analysis and Kinesiology of Fundamental Exercises and Swimming Strokes is particularly valuable for those treating or supervising these cases.

Numerous illustration of facilities, conditions, and procedures add greatly to the usefulness of this valuable book.

Dr. Lowman is one of the leading orthopedists in America, and author also of *Corrective Physical Education for Groups.* He speaks from long study, research, and experience.

C. H. KEENE

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BIBLIOGRAPHY

A good library, or at least a knowledge of the sources of accurate information, is essential if one is to move forward in his chosen field safely, scientifically, and with as little waste of effort as possible. There follows the first of a series of short bibliographies on selected fields of school health.

The School Health Programs:

Chenoweth, Lawrence B., and Selkirk, Theodore K., *School Health Problems,* F. S. Crofts and Company, New York, pp. 387—$3.00.

Hughes, William L., *Administration of Health and Physical Education in Colleges,* A. S. Barnes and Company, New York, 1935, pp. 368—$3.00.

Keene, Charles H., *The Physical Welfare of the School Child,* Houghton, Mifflin Company, Boston, 1929, pp. 505—$2.40.

Williams, Jesse F., and Brownell, Clifford L., *The Administration of Health and Physical Education,* W. B. Saunders Company, Philadelphia, 1934, pp. 598—$3.00.

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MEETINGS

National Tuberculosis Association, May 31 to June 3, 1937, Milwaukee, Wisconsin.

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New England Health Education Association, June 4 and 5, 1937, at Massachusetts Institute of Technology, Cambridge, Massachusetts.

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Annual Conference of Health Officers and Public Health Nurses, State of New York, June 22 to 24, 1937, Saratoga Springs, New York.

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New York State Association of School Physicians, June 21, 1937 Grand Union Hotel, Saratoga Springs, New York. Make hotel reservations at once.

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Health Section, World Federation of Education Associations, August 2 to 7, 1937, Tokyo, Japan.

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American Association of School Physicians, and American Public Health Association, October 5 to 8, 1937, New York City.

The Journal of School Health

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